

# Language Leap - SOEN490 Attributes

## **IMPACT OF ENGINEERING ON SOCIETY**

1. What impact, if any, does your product have on the wellbeing of people?
  - Our product improves the wellbeing of people by teaching them new languages. This can help them in their day to day interactions.
2. What are the potential negative effect(s) people may experience as a result of your product?
  - Our product consists of a web application which requires a username, password, and an email. Even though this data is stored encrypted, there are risks that this data might get stolen by hackers. However, it is not very likely, and decrypting the information is close to impossible.
3. Can your product impact the environment?
  - Since our product is a web application, it requires a server to run on. With that being said, our product does not directly impact the environment. However, the tools required to run it do consume large amounts of energy which might impact the environment.
4. What kinds of measures have you taken in order to minimize the impact of your product on the environment?
  - Our product enforces good software engineering practices which cause our software to run optimized, efficient code. For that reason, it is possible that the impact on the environment is minimized as efficient code tends to consume less energy.

## **ETHICS AND EQUITY**

1. What ethical implications, if any, have appeared as a result of your product?
  - Our product stores a lot of user information. For that reason, there is a huge responsibility of the product owner not to sell this information, and ensure it is kept confidential.
2. What kinds of solutions your team has adapted in order to eliminate the ethical issue(s) concerning your product?

- Our product encrypts all sensitive information before storing it. This guarantees that the data will remain confidential.

## PROFESSIONALISM

### 1. Do you understand the implications of your decisions as an engineer during your capstone project?

- As an engineer, our decisions can greatly affect the environment, people's lives, and society. For that reason, it is vital to follow good engineering standards that have been proven to work. Furthermore, any decision made must be reviewed, communicated, and argued for. In other words, the decision must be accepted by the team and must be reviewed to ensure it is acceptable by an engineer's standards.

#### a. To what extent do you believe your project will have impact on society

- We believe that our product will have a great deal of impact on individuals who seek to learn English in a fun and innovative way. It will allow them to deal with their day-to-day interactions better, increase their confidence, and ameliorate their understanding on the English language.

#### b. To what extent do you believe your project will have impact on the environment

- We believe that our product will have a very minimal impact on the environment due to the fact that it is a software project. As mentioned before, there might be some indirect effects on the environment because of the tools required to run the project. However, the product itself does not impact the environment.

### 2. Have there been any controversial issues? How have you resolve them?

- Our product has one controversial issue which requires users to sign up in order to use our product. With that being said, the users must provide us with their valid personal information. This information must be encrypted in order to ensure its confidentiality. However, there were debates on what should be encrypted, and what shouldn't. This was resolved by following common large-scale websites. In other words, our product encrypts the same fields that most websites do.

#### a. What are the legal implications

- The user has the right to know that his information will be stored. This is a disclaimer that should be present once signing up for the website in order to let the user know what he is signing up to.

- b. What are the social implications
  - This type of product has been done before and has been largely accepted by different societies.
- 3. School/Course rules and guidelines:
  - a. Timely delivery of tasks?
    - Our product was ran with an Agile methodology which requires planning, task assigning, and bi-weekly deliveries. Our team has managed to deliver completed subsets of the product on time. It is also important to note, that these deliveries were always demonstrated to the stakeholders who signed their approval of each task.
  - b. Obtaining necessary permissions to conduct experiments?
    - Since our product is a web application, no experiments had to be done using the school's resources.
  - c. Your relationship with the technical personnel who are assisting to Capstone courses.
    - Our product is divided into 4 big releases. Each release required the team to gather and demonstrate their product to the course coordinator Dr. Peter Rigby. During these demonstrations we received feedback and suggestions. Furthermore, there have been bi-weekly meetings with the course Teacher Assistant who was kept up to date with our latest completed tasks.

## **ECONOMICS**

- 1. Can you make money from your design?
  - The product could be monetized by charging users a subscription fee. This subscription fee can either be a mandatory fee to access the website, or be a fee to unlock additional features.
- 2. Do you plan to make money from your design if an opportunity arises?
  - Our product belongs to our stakeholder. For that reason, our team does not have the right to make money from the design.

3. For software projects: Would you be interested in releasing your product to the public domain under an open source license?
  - As mentioned before, this product belongs to our stakeholder. It is his decision what he wants to do with the product.
4. Can you manufacture?
  - No, we cannot manufacture our software product.
5. What do you need to manufacture?
  - Not applicable.
6. Would you change your design to improve the marketability of your product?
  - The requirements of this product came directly from the stakeholder who knows this market better than the team members. It will have to be his decision to make changes to the design in order to improve marketability. However, as it currently stands, the product is perfectly suitable to be on the market.

## **LIFELONG LEARNING**

1. What additional knowledge have you self-acquired in order to tackle your capstone project?
  - The team was required to learn a web framework called Laravel to assist in the creation of the web application. Furthermore, the team had to learn how to use JIRA in order to plan, and manage the product throughout its lifecycle.
2. What research methods have you learned in order to acquire necessary knowledge/information needed to tackle your capstone project?
  - Since our product is a web application, a lot of the answers were available online with a simple Google search. Furthermore, the framework used to create the website has extensive documentation in order to assist the development phase.